

808nm 500mW TO-5 Laser Diode

Model: AL0808F500T5-XXXX



Features:

- Output power: 500mW
- Efficient quantum well structure
- Lower threshold current
- Center Wavelength: 808nm
- Package: TO-5 (Φ9mm)

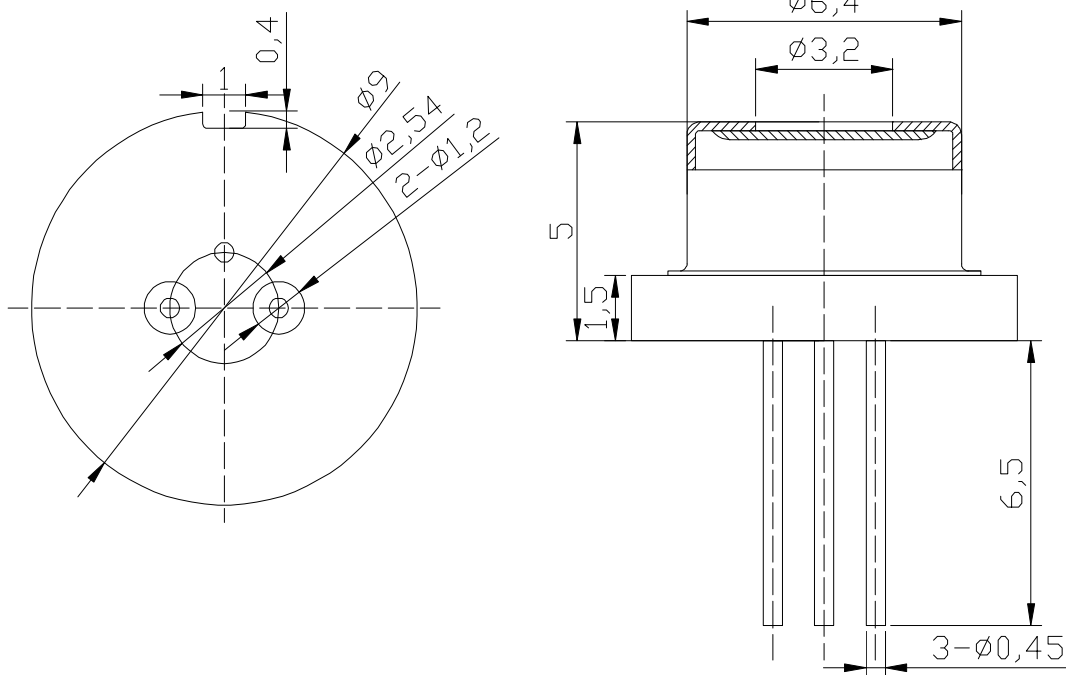
Absolute Maximum Ratings(T=25 °C)

Parameter	Symbol	Unit	Min	Max	Note
Reverse Voltage	V _r	V	-	2	-
Operating Temperature	T _{op}	°C	10/-10	30	-10(FW)/10(NGC)
Storage Temperature	T _{stg}	°C	10/-10	85	-10(FW)/10(NGC)
Solder Reflow Temperature	S _{temp}	°C	-	260	10 seconds max

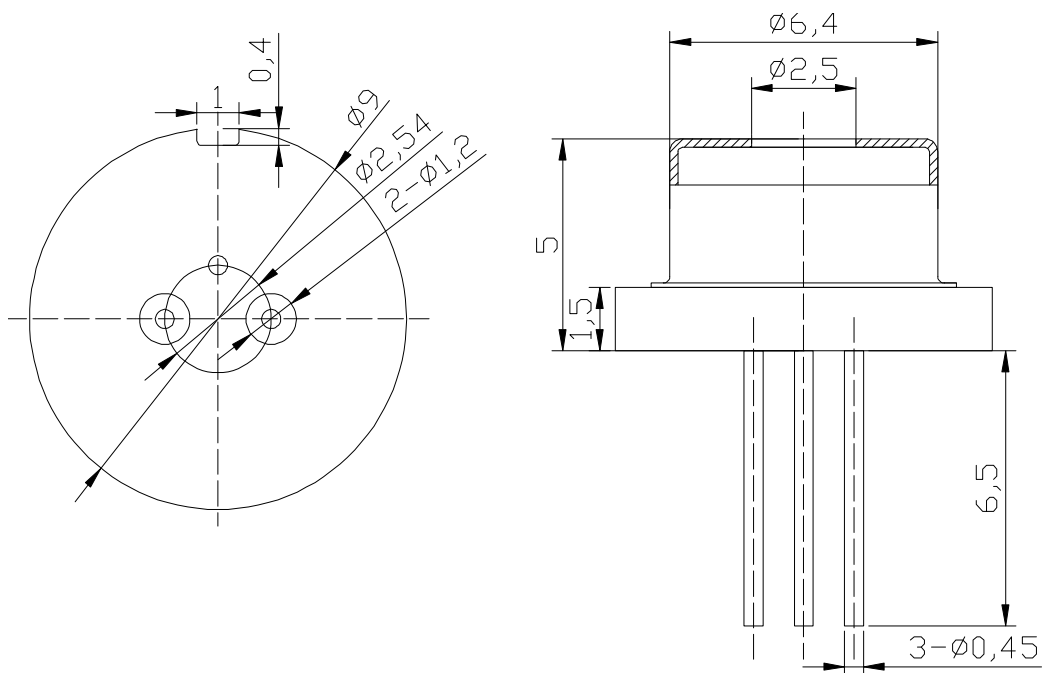
Electro-Optical Characteristics(T=25 °C)

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Optical output power	P _o	mW	500	-	-	I _{op} =650mA
Center wavelength	λ _c	nm	805	808	811	I _{op} =570mA
Spectral width	Δλ	nm	-	-	3.5	FWHM, I _{op} =570mA
Threshold current	I _{th}	mA	-	120	150	
Operating current	I _{op}	mA	-	570	650	P _o =500mW
Operating voltage	V _f	V	-	1.7	2	P _o =500mW
Slope Efficiency	η	W/A	-	1	-	
Monitor current	I _m	uA		500	-	P _o =500mW
Beam divergence	θ _⊥ ×θ _∥	°	-	40×12	-	FWHM
Wavelength temperature coefficient	dλ/dT	nm/°C	-	0.3	-	-
Emitting area	-	μ m	50×1			-
Polarization	-	-	TE			-

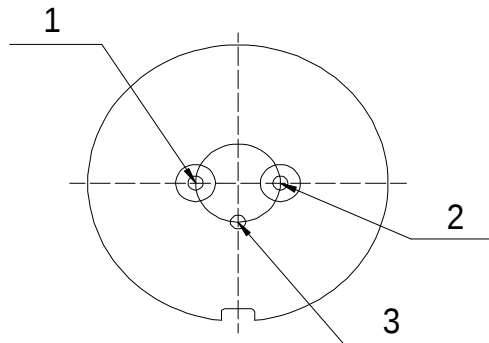
Outline Drawings (FW) (in: mm)



Outline Drawings (NGC) (in: mm)

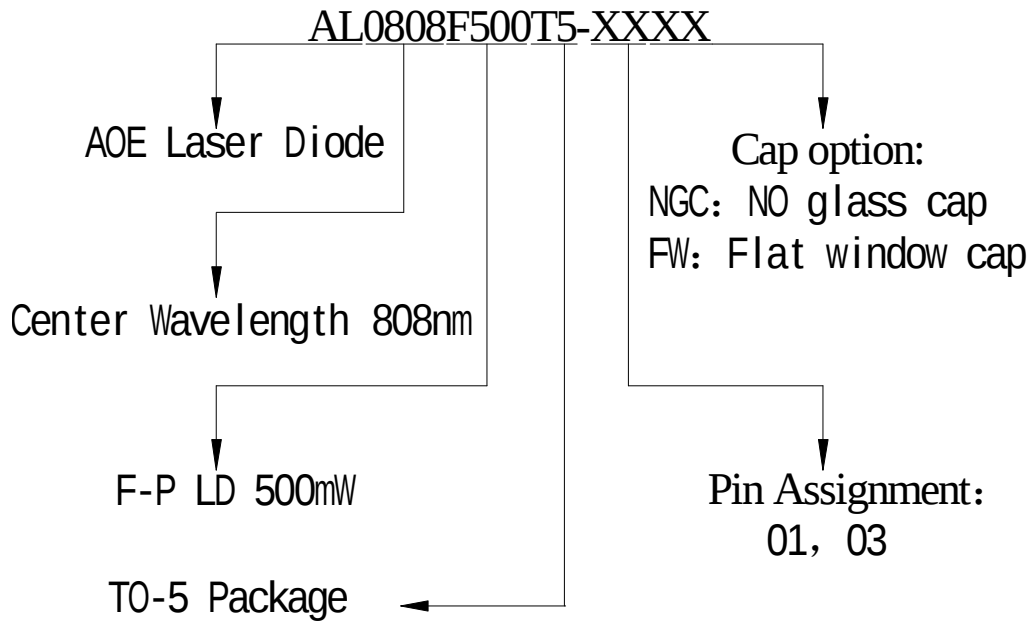


Pin Assignment (Bottom View) :



Pin Assignment			
Type \ PIN	1	2	3
03	-	LD Cathode	LD Anode
01	PD Anode	LD Cathode	LD Anode/PD Cathode

Ordering information:



Precaution :

- (1) The laser diodes should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying, the modules should be packaged with ESD proof material. For assembling, the workbench, the soldering iron and the human body should be grounded.



- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.
- (4) A voltage stabilizer should be taken into consideration for the power supply, and shock voltage should be avoided during the process of switching on and off of the supply in order to prevent the device from damaging.
- (5) Pay attention to the dust polluting for AL0808F500T5-XXNGC. The device may be damaged when operating in atmosphere because the dust may be absorbed onto the region of lighting under the action of electric field.

Warning: Direct exposure of one's eyes to the laser beam or long time exposure of one's skin to the beam must be avoided.